

**REMARKS**

The 23 July 2010 Official Action and the references cited therein have been carefully reviewed. In view of the amendments presented herewith and the following remarks, favorable reconsideration and allowance of this application are respectfully requested.

Claims 1, 2, 24, 28, 43 and 44 are pending in the application. By way of this amendment, claims 1 and 44 have been amended and claim 24 has been cancelled. Support for the claim amendments can be found in the original application and claims as filed. No new matter has been added.

Turning to the substantive aspects of the 23 July 2010 Official Action, the Examiner has maintained the rejection of claims 1, 2, 24, 28, 43 and 44 under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the enablement requirement. The Examiner has also rejected claims 1, 2, 24, 28, 43 and 44 under 35 U.S.C. §112, second paragraph for alleged indefiniteness. Specifically, the Examiner alleges that the term "large" is indefinite.

In response, Claim 1 has been amended in keeping with the Examiner's helpful suggestion. The Examiner has indicated that this amendment will obviate the rejection of the claims under 35 U.S.C. §112, first paragraph. Support for the amendment can be found at page 5, line 1, page 10, lines 15 – 18, and page 13, lines 1 – 5 of the specification. The term "large" has been removed from all claims, thereby removing any perceived ambiguity. These amendments are being made solely to obtain expeditious allowance of the instant application. Amendment of the claims is made without prejudice, without intent to abandon any originally claimed subject matter, and without intent to acquiesce in any rejection of record. Applicants expressly reserve the right to file one or more continuing applications directed to the subject matter of claims cancelled herein or withdrawn from consideration.

The foregoing constitutes the entirety of the rejections raised in the 23 July 2010 Official Action. Each rejection is traversed for the reasons set forth below. Applicants respectfully submit that the claims as instantly presented are patentable, and therefore, are in condition for allowance.

**Claims 1, 2, 24, 28, 43 and 44 Satisfy the Enablement Requirement of 35 U.S.C. §112,  
First Paragraph**

The Examiner has maintained the rejection of claims 1, 2, 24, 28, 43 and 44 under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the enablement requirement. Applicants respectfully traverse this rejection.

Applicants maintain that one of skill in the art would be well apprised from the teachings of the specification and the prior art of a variety of large gene deletions in a gene encoding Factor IX that could be used in the methods of the invention. Indeed, the prior art reference cited by the Examiner (Matthews *et al.*, 1987, J. Clin. Invest., 79:746-753 ("Matthews")) provides examples of large gene deletions in a gene encoding Factor IX that can result in generation of inhibitory antibodies to Factor IX upon administration of exogenous Factor IX. Matthews analyzed the genetic defects in nine hemophilia B patients who produce inhibitory anti-Factor IX antibodies, and confirmed that four of the patients had large deletions in the Factor IX gene (see Matthews at page 751, column 2, first full paragraph). The fact that Matthews also identified inhibitor patients having other types of defects (*i.e.*, not large deletions) in the Factor IX gene, does not mean that undue experimentation would be needed for one of skill in the art to identify a mammal having a large gene deletion in a gene encoding Factor IX which can result in generation of inhibitory antibodies to Factor IX upon administration of exogenous Factor IX for use in the methods of the invention.

At the top of page 3 of the Official Action, the Examiner admits that the specification is enabling for a genetic defect wherein a mammal shows symptoms of hemophilia B resulting in the generation of inhibitory antibodies to Factor IX. Therefore, in an effort to expedite prosecution, Applicants have amended claim 1 to include the wording suggested by the Examiner. Thus the claim is now directed to "A method of preventing the formation of inhibitory antibodies to Factor IX delivered to a mammal by way of an adeno-associated viral vector, said mammal showing symptoms of hemophilia B and having a genetic defect which can result in generation of inhibitory antibodies to Factor IX upon administration of exogenous Factor IX..." Claim 24 has been cancelled and claim 44 omits the recitation that the mammal has hemophilia B, as this is stated in amended claim 1.

In view of all of the foregoing, Applicants submit that the specification fully enables the presently claimed method. Accordingly, Applicants request that the rejection of claims 1, 2, 24, 28, 43 and 44 under 35 U.S.C. §112, first paragraph be withdrawn upon reconsideration.

#### **Claims 1, 2, 24, 28, 43 and 44 are Definite**

The Examiner has ejected claims 1, 2, 24, 28, 43 and 44 under 35 U.S.C. §112, second paragraph for alleged indefiniteness because of the recitation of the term "large" in relation to the gene deletion of the FIX gene in claim 1. Applicants respectfully disagree with the Examiner's

position. However, the present amendment to claim 1 omits the phrase "large gene deletion" and Claim 24 has been cancelled, rendering these rejections moot. Applicants submit that the invention as claimed is definite, and specifically that claims 1, 2, 28, 43 and 44 are definite. Accordingly, Applicants request that the rejection of claims 1, 2, 28, 43 and 44 under 35 U.S.C. §112, second paragraph be withdrawn upon reconsideration.

### CONCLUSION

It is respectfully requested that the amendments presented herewith be entered in this application. In view of the foregoing amendments and remarks, Applicants submit that claims 1, 2, 28, 43 and 44 are in condition for allowance.

The claims as presently amended are also believed to eliminate certain issues and better define other issues which would be raised on appeal, should an appeal be necessary in this case. Therefore, it is respectfully urged that the rejections set forth in the 23 July 2010 Official Action be withdrawn and that this application be passed to issue. A notice of allowance is earnestly solicited.

In the event the Examiner is not persuaded as to the allowability of any claim, and it appears that any outstanding issues may be resolved through a further telephonic interview, the Examiner is requested to telephone the undersigned attorney at the phone number given below. If a fee is required or an overpayment is made, the Commissioner is authorized to charge or credit the deposit account of the undersigned, Account No. 04-1406.

Early and favorable action on the present application is earnestly solicited.

Respectfully submitted,

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